CLAIMS

What is claimed is:

5   1.   A method for establishing a physical location of a first access
point which provides information corresponding to an object, comprising:
         determining when a first mobile communications device is within
range of a second access point having a known physical location;
         determining when the first mobile communications device is
10   within range of the first access point;
         transmitting data to the first access point, wherein the data includes
the physical location of the second access point;
         determining the physical location of the first access point based on
the data from the first mobile communications device.

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         2.   The method of Claim 1 further comprising:
         determining when a second mobile communications device is
within range of a third access point having a known physical location;
         determining when the second mobile communications device is
20   within range of the first access point;
         transmitting data to the first access point, wherein the data includes
the physical location of the third access point;
         refining the physical location of the first access point based on the
data from the second mobile communications device.

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         3.   The method of Claim 2 further comprising:

successively refining the location of the first device based on data supplied by additional mobile communications devices.

4.   The method of Claim 3 further comprising:

5   performing a Kalman filtering technique to refine the physical location of the first access point.

5.   The method of Claim 1, wherein the data includes elapsed time and an estimated velocity vector.

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6.   The method of Claim 1, wherein the data is transmitted wirelessly.

7.   The method of Claim 1, wherein locations of additional

15   access points are determined and refined based on the determining and transmitting process.

8.   A method for establishing a physical location of a first access point, comprising:

20   storing location information corresponding to a plurality of access points by a service;

determining when an individual passes by a first access point, wherein the first access point has a known location stored by the service;

determining when the individual passes by a second access point;

25   calculating a location corresponding to the second access point based on the location of the first access point.

9.   The method of Claim 8 further comprising:

determining when the individual passes by a third access point,

wherein the third access point has a known location stored by the service;

refining the location corresponding to the second access point based

5   on the location of the third access point.

10.   The method of Claim 9 further comprising:

using a Kalman filtering technique to refine the location of the

second access point.

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11.   The method of Claim 8, wherein the location corresponding

to the second access point is refined based on elapsed time and velocity

vector information.

15   12.   The method of Claim 8, wherein data is transmitted

wirelessly between individual and the service.

13.   The method of Claim 8, wherein locations for a plurality of

access points are successively established and refined based on data

20   supplied by individuals passing by access points having known locations.

14.   A network of information access points, comprising:

a plurality of information access points associated with objects or

point of references having known physical locations;

25   a mechanism for establishing a physical location of a particular

information access point by collecting information from a plurality of

electronically connected individuals, wherein the physical location is

refined over time as the electronically connected individuals move between the plurality of information access points having known physical locations.

5   15.   The network of Claim 14, wherein the location of one electronically connected individual improves as the accuracy of the locations of the information access point improves.

16.   The network of Claim 14, wherein the electronically

10   connected individuals exchange position and accuracy information.

17.   The network of Claim 14 further comprising a plurality of virtual information access points.

15   18.   A location aware service for automatically establishing a physical location of a particular information access point, comprising:

a memory for storing physical locations corresponding to a plurality of information access points;

a receiver coupled to the memory which receives data from

20   electronically coupled individuals as they pass by information access points;

a processor coupled to the receiver which determines the physical location for the particular information access point based on the data received from the electronically coupled individuals.

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19.   The location aware service of Claim 18, wherein the processor refines the physical location for the particular information access point according to a Kalman filtering technique.

5   20.   The location aware service of Claim 18, wherein the information access points transmit URL information to the electronically coupled individuals.

21.   The location aware service of Claim 18 further comprising a
10   transmitter for transmitting location data to the electronically coupled individuals.